

REMARKS

In response to the Office Action mailed October 6, 2004, Applicant respectfully requests reconsideration. To further the prosecution of this Application, Applicant submits the following remarks, has canceled claims, and has added new claims. The claims as now presented are believed to be in allowable condition. A notice to this affect is respectfully requested.

Claims 1-20 were pending in this Application. By this Amendment, claim 3 has been canceled. Claims 21-28 have been added. Accordingly, claims 1-2 and 4-28 are now pending in this Application. Claims 1, 8, and 14 are independent claims.

Rejections under §102 and §103

Claims 1, 4-6 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,139,193 by Lamothe, et al. (hereinafter Lamothe). Claims 2-3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lamothe. Claims 7-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lamothe in view of U.S. Patent No. 6,224,013 by Chisolm (hereinafter Chisolm). The Applicant respectfully disagrees with these contentions and asserts that the present claimed invention is not anticipated by any disclosure in the Lamothe and Chisolm references, either alone or in combination. The claims are in allowable condition

Claim Amendments

Claim 1 has been amended with cancelled and previously examined claim 3. The amendment to claim 1 does not add new matter to the application.

Newly Added Claims

Claims 21-28 have been added and are believed to be in allowable condition. Claims 21 and 22 depend from claim 1, claims 23-25 depend from claim 8, and claims 26-28 depend from claim 14. Support for claims 21, 23, and

26 is provided within the specification, for example, on page 9, lines 16-18. Support for claims 24, 25, 27 and 28 is provided within the specification, for example, on page 7, lines 4-6. Support for claim 22 is provided within the specification, for example, on page 10, line 22 through p. 11, line 18. No new matter has been added to the application by the new claims.

Lamothe and Chisolm References

Lamothe relates to a remote signal cap lock, such as the inlet cap of the fuel tank of an automobile. In Lamothe, the cap lock includes a spring cap 1 for the inlet of a fuel tank of an automobile, a lock 3 for the cap, a solenoid 4 for unlocking the lock, a switch for controlling the lock, and an electric circuit 7 controlled by the switch for energizing the solenoid.¹

Chisolm relates to a device for retaining fins of aerial bombs and missiles in a folded, stowed position and for deploying the fins upon release of the bomb or missile from an aircraft.² In Chisolm, "the invention includes a single device that both retains the fins in the stowed position, and with spring power acts to cause the fins to pivot from the stowed position to the deployed position."³ As indicated in Chisolm, the device (e.g., deployment device) becomes activated by use of a lanyard 90. In Chisolm, "[t]he lanyard 90 is attached to the aircraft so that dropping the bomb or missile out of the aircraft causes the lanyard, when it reaches the end of its length, to be pulled or withdrawn from the holes to automatically release the deploying device 30."⁴

Rejections under §102(b)

Claims 1, 4-6 were rejected under 35 U.S.C. §102(b) as being anticipated by Lamothe.

¹ Lamothe, col. 1, l. 37-44.

² Chisolm, col. 1, l. 3-8.

³ Chisolm, col. 1, l. 45-48.

⁴ Chisolm, col. 4, l. 32-36.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."⁵ "The identical invention must be shown in as complete detail as is contained in the ... claim."⁶

Lamothe, however, does not anticipate amended independent claim 1 because Lamothe does not teach or suggest each and every element of independent claim 1.

As amended, independent claim 1 recites a locking device with a solenoid release actuator having one or more locking balls where the locking balls are "adapted for holding the locked member against a force of at least about 150 pounds". While Lamothe describes a lock for the inlet cap of a fuel tank where the lock includes a lock casing 13 and a lock ball 16 mounted in the lock casing 13, Lamothe does not teach or suggest the lock ball as "adapted for holding the locked member against a force of at least about 150 pounds" as claimed by the Applicant.

Because Lamothe does not teach or suggest each and every element as set forth in independent claim 1, amended independent claim 1 patentably distinguishes over Lamothe. Accordingly, claim 1 is in allowable condition and the rejection of claim 1 under 35 U.S.C. §102(b) should be withdrawn. Claims 2 and 4-7, which depend on claim 1 should also be allowed to issue as depending upon an allowable independent claim (i.e., for at least the reasons presented). Reconsideration of the rejection is respectfully requested.

Rejections under §103(a)

In order to establish a *prima facie* case of obviousness, the Office Action must meet three criteria.

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to

⁵ *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

⁶ *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”⁷

Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lamothe. As indicated above, claim 1 has been amended with previously examined and currently cancelled claim 3. As such, independent claim 1 recites a locking device with a solenoid release actuator having one or more locking balls where the locking balls are “adapted for holding the locked member against a force of at least about 150 pounds”.

With respect to claim 3, the Office Action indicates that “[i]t would have been obvious to one having ordinary skill in the art at the time of the invention was made to make the forces involved as needed for the situation and size.” Based upon the Lamothe reference, the Applicant disagrees with this contention.

As indicated above, Lamothe relates to a remote signal cap lock, such as for the inlet cap of the fuel tank of an automobile. Lamothe is silent regarding utilization of any amount of force, as generated by the locking balls, to hold a locked member (e.g., the gas cap). As such, Lamothe provides no teaching or suggestion for using locking balls to hold a locked member against a force of at least about 150 pounds, as claimed by the Applicant.

Furthermore, Lamothe is silent regarding utilization of a specific amount of force (e.g., a force of at least about 150 pounds) generated by the locking balls to hold the locked member (e.g., the gas cap). Lamothe provides no suggestions to modify to the reference to use locking balls to hold a locked member against a force of at least about 150 pounds, as claimed by the Applicant.

Because Lamothe does not teach or suggest all of the claim limitations of amended claim 1 and because Lamothe does not provide a suggestion to utilize the locking balls to hold “the locked member against a force of at least about 150

⁷ *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

pounds", claim 1 is not obvious in view of Lamothe. Accordingly, the rejection of the claim should be withdrawn and claim 1 should be allowed to issue. Claims 2 and 4-7, which depend on claim 1 should also be allowed to issue as depending upon an allowable independent claim (i.e., for at least the reasons presented). Reconsideration of the rejection is respectfully requested.

Independent claims 8 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lamothe in view of Chisolm. With respect to independent claims 8 and 14, the Office Action states "[i]t would have been obvious to one skilled in the art at the time the invention was made to substitute the locking means of Lamothe et al for the locking means of Chisolm since it is a mere mechanical substitution". However, Applicant's independent claims 8 and 14 are not unpatentable over Lamothe in view of Chisolm because the combination of Lamothe and Chisolm would not work (i.e., there must be a reasonable expectation of success when combining references).

As indicated above, Lamothe relates to a remote signal cap lock, such as for the inlet cap of the fuel tank of an automobile. Also as indicated above, Chisolm relates to a mechanical device (e.g., using spring power) for retaining fins of aerial bombs and missiles in a folded, stowed position and for deploying the fins upon release of the bomb or missile from an aircraft.⁸ As indicated in Chisolm, the device (e.g., deployment device) becomes activated by use of a lanyard 90. In Chisolm, "[t]he lanyard 90 is attached to the aircraft so that **dropping the bomb or missile out of the aircraft causes the lanyard**, when it reaches the end of its length, to be pulled or withdrawn from the holes to automatically release the deploying device 30."⁹

Chisolm, therefore, requires the dropping of the bomb or missile from an aircraft to activate the deployment device. Conventional aerial bombs or missiles, as described in Chisolm, however, do not include a power supply. As such, replacing the mechanical deployment device of Chisolm with the signal cap

⁸ Chisolm, col. 1, l. 3-8.

⁹ Chisolm, col. 4, l. 32-36.

lock of Lamothe would cause the deployment device to become inoperable. Assume a user releases a bomb from an aircraft, where the bomb includes the signal cap lock of Lamothe as the fin deployment device. Because the bomb does not include a power supply, the signal cap lock could not electrically activate the signal cap lock to deploy the fins of the bomb.

Because the combination of Lamothe and Chisolm does not provide a reasonable expectation of success, independent claims 8 and 14 are patentable over Lamothe in view of Chisolm. Accordingly, the rejection of claims 8 and 14 should be withdrawn and the claims should be allowed to issue. Furthermore, claims 9-13, which depend from claim 8, and claims 15-20, which depend on claim 14 should also be allowed to issue as depending upon an allowable independent claim (i.e., for at least the reasons presented). Reconsideration of the rejection is respectfully requested.

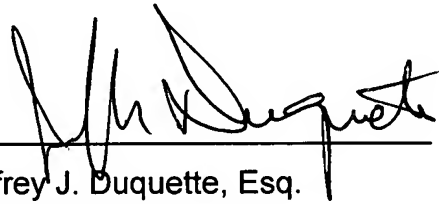
Conclusion

In view of the foregoing remarks, this Application should be in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after this Response, that the Application is not in condition for allowance, the Examiner is respectfully requested to call the Applicant's Representative at the number below.

Applicant hereby petitions for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-0901.

If the enclosed papers or fees are considered incomplete, the Patent Office is respectfully requested to contact the undersigned collect at (508) 366-9600, in Westborough, Massachusetts.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffrey J. Duquette", is written over a horizontal line.

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Attorney Docket No.: TXT04-11

Dated: November 22, 2004